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AN OBJECTIVE STUDY OF THE RATING OF TRAITS IN SCHOOL ACHIEVEMENT

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In the Wisconsin High School report cards are issued every six weeks. These reports contain not only marks in scholarship, but also ratings in each of the five traits—industry, initiative, attention, attitude, and improvement. A copy of the report card is herewith given to indicate the form and manner in which these marks and ratings are recorded.

THE WISCONSIN HIGH SCHOOL OF

THE UNIVERSITY OF WISCONSIN

Report of.....in.....School year

.....Teacher

Date of Report.....						
Scholarship.....						
Traits						
1. Industry.....						
2. Initiative.....						
3. Attention.....						
4. Attitude.....						
5. Improvement..						
Times absent.....						
Times tardy.....						

In scholarship records, E indicates **excellent**; G, **good**; F, **fair**; P, **passable** (not recommended for college entrance); N, **failure**. Promotion is determined primarily on scholarship records. **Each report** is an estimate of the pupil's work and a record of attendance from the **first day** of the school year (or quarter in part-year subjects) to the date of the report.—A, B, and C are used to indicate the ratings in the following traits: Industry, initiative, attention, attitude, and improvement. A represents a high, B a medium, and C a low degree, quality, or amount of the trait. Mark in [] is an estimate of the work for the pastweeks.

Teachers have learned by training and experience how to evaluate scholarship with reasonable accuracy; as a rule it is quite possible to get sufficient objective evidence by which to determine what mark a pupil should have. To give equally true ratings in the five traits mentioned is not such an easy matter, for people differ greatly in their conception of what these traits really are, and even if they did agree substantially on this point, it is difficult to attach these abstract terms to objective data which will give us the necessary assurance that the ratings are reliable and fair.

The first difficulty has been overcome in our school by mutually defining these traits in an acceptable manner so that each teacher may aim approximately at the same thing when rating pupils in any one of these traits. These definitions are found on the reverse side of the report card and are as follows:

Industry represents working power applied continuously and actively in the mastery of assignments. It is the quality of response a pupil exhibits in the daily preparation of lessons, either under self-direction at home or under partial supervision in the school. The test of industry lies in the character of the results of study as revealed in the recitation.

Initiative represents the ability to plan and to execute; the ability to go forward without detailed oversight. The pupil who works with a purpose, more or less independently, gives evidence of initiative.

Attention consists in withholding thought from diverting subjects and fixing it upon the problem in hand. Practically, attention means thoughtfulness. It is the ability to stick to a subject, to think it through, and to test conclusions.

Attitude represents the disposition of a pupil toward the work of the school. Questions like the following are raised in determining the character of a pupil's attitude: Does he show a willingness to respond to the demands of the teacher? Does he regard the preparation of his lessons as serious business? Does he co-operate in advancing the interests of the class?

Improvement represents the amount of progress and accomplishment.

In the absence of any specific material outside of that used to evaluate the scholarship of the pupil, these ratings are usually made according to the teacher's judgment. They can therefore, hardly be impersonal; further, be they ever so correct, it is quite impossible to base them on the rock of tangible evidence. Such judgments are influenced directly by attainment in scholarship; often they are strongly tinged by the more recent impressions

received; at times even a few very strong impressions may control the judgment.

This year, in the classes in chemistry and physics, an attempt has been made to overcome this difficulty by securing some simple, tangible material, independent of that representing scholarship, which may serve as a continuous function of the traits actually displayed in the classroom. The regular assignment pad of the school is used for this purpose. Daily assignments are made in duplicate much like the grocer takes down an order; one of the copies is filed with the teacher when the pupil leaves the classroom.

This pad serves an additional purpose in the foregoing two classes. With each written assignment a special question is given which may be answered on the assignment slip at any time during the class period. These questions are not given primarily for the purpose of quizzing, but are intended to be thought-provoking; they refer to subject-matter recently studied and usually call for a special interpretation of some fact or principle emphasized in a previous lesson. The teacher promptly marks the answers received correct, C, wrong, X, partly right, $\frac{1}{2}$, or unanswered, o. After peculiar errors have been corrected at the next recitation the slips are properly filed.

Following are typical questions asked in this connection:

1. Why cannot nitric acid be used in the preparation of hydrogen?
2. How may hydrogen be distinguished from carbon monoxid?
3. How much does a mole of sulphuric acid weigh?

At the end of each six-week period the numerical data indicated in Table I are readily obtained.

The ratings in industry, initiative, attention, and attitude are first determined; then scholarship is entered from entirely independent records; finally the rating in improvement is obtained together from the first four traits and the scholarship by comparison with previous marks. The percentage of questions actually answered whether right or wrong, is here considered a function of the pupil's initiative. One-fourth of the class having highest percentages are marked A, one-fourth having the lowest percentages are marked C, and the rest are marked B. In the same manner the ratings on industry are distributed from the column showing the

percentage of questions correctly answered; those on attitude are determined from the column showing the percentage of the answers

TABLE I*

Chemistry Number and Name	Reports	Questions	Answers	Answers Percentage Questions	Correct Answers	Correct Answers Percentage Questions	Correct Answers Percentage Answers	Industry	Initiative	Attention	Attitude	Improvement	Scholarship
1.....	23	17	13	77	2	12	16	C	B	C	B	C	P
2.....	19	13	8	61	3	23	37	B	C	B	C	C	N
3.....	5	3	0	0	0	0	0	C	C	C	C	C	N
4.....	20	14	14	100	9	64	64	A	A	B	B	C	F-
5.....	22	17	12	70	3	18	25	C	B	C	B	C	P
6.....	14	10	6	60	0	0	0	C	C	C	C	C	N
7.....	17	12	5	42	2	16	40	C	C	B	C	B	P
8.....	21	14	3	21	1	7	33	C	C	C	B	B	P
9.....	23	17	11	65	4	23	36	B	B	B	B	B	F
10.....	25	18	14	78	5	28	36	B	B	C	B	B	P
11.....	25	20	17	85	10	50	59	B	B	B	A	B	F
12.....	23	17	14	82	7	41	50	B	B	B	A	A	G+
13.....	27	21	19	90	14	66	74	A	B	A	A	A	G
14.....	24	18	16	89	11	61	69	B	B	A	A	A	Ex
15.....	25	18	15	83	7	39	47	B	B	B	B	A	F+
16.....	25	20	19	95	15	75	79	A	A	A	A	A	Ex
17.....	27	21	21	100	19	94	94	A	A	A	A	A	Ex
18.....	15	11	8	73	3	27	37	B	B	B	C	A	P+
19.....	27	21	20	96	16	76	80	A	A	A	A	B	G+
20.....	21	19	19	100	12	63	63	B	A	B	B	B	G
21.....	15	12	11	93	4	33	36	B	B	B	C	B	F-
22.....	28	21	18	86	14	66	78	A	B	A	A	A	G
23.....	26	19	15	76	5	26	33	B	B	C	A	C	F-
24.....	8	7	5	71	3	43	60	B	B	B	C	B	P-
25.....	22	16	16	100	8	50	50	B	A	B	B	B	P+
26.....	24	19	10	52	4	21	40	C	C	B	B	B	P
27.....	27	20	20	100	14	70	70	A	A	A	A	A	Ex
28.....	24	19	14	74	5	26	36	B	B	B	B	B	F

*Special note is made of the number of reports handed in, the number of questions encountered, the number of answers given, and the number of correct answers. The percentage of questions answered, the percentage of questions answered correctly, and the percentage of answers which proved correct are then determined.

which proved correct; those on attitude are determined from the number of reports handed in, after due allowance has been made for absences.

The percentages used for rating may be increased by doing special tasks, such as making special reports, making a chart,

doing an extra experiment, or assisting in setting up demonstration apparatus. The teacher prepares slips with directions for these tasks. Volunteers select such work as they desire and then, whether the work is done promptly and acceptably or not, the slips are filed, giving credit accordingly.

The results thus far obtained are quite satisfactory.

1. The general correlation between the traits and scholarship is high, although some of these traits were determined by factors entirely foreign to material used for the evaluation of scholarship.

2. The pupil is offered a continuous opportunity to determine in a definite and concrete way what his traits are, without the injection of the personal factor of the teacher.

3. The pupil is able to determine the weaknesses which appear to account for his lack of achievement.

4. The teacher gets daily a definite reaction from every pupil in the class and thus is enabled to learn to what extent his work has really been stimulating.

5. If we accept the assumption that these traits are determining factors in scholarship, it appears that they are general enough to function similarly in activities where scholarship is not the primary aim.

6. There is a very close correlation between industry and attention, omitting native ability as a factor.

7. This study furnishes material whereby the native ability of the pupil may ultimately be approximated. For this purpose the records from other teachers would be needed.

8. Even if the teacher's judgment could determine these traits equally as well as they are determined here, it could not meet inquiry and criticism by concrete evidence.

9. The scheme here used can be carried out in a short time.

NOTE.—The reader is reminded that this is only a study, as the title indicates. The chief value which such studies offer is not in the finality of the results but in the possibilities which the teacher can find in submitting his teaching to such types of analysis.